A. F. FLINT.

MACHINES FOR SETTING SPOKES.

No. 180,333. Patented July 25, 1876.

Fig. 1.

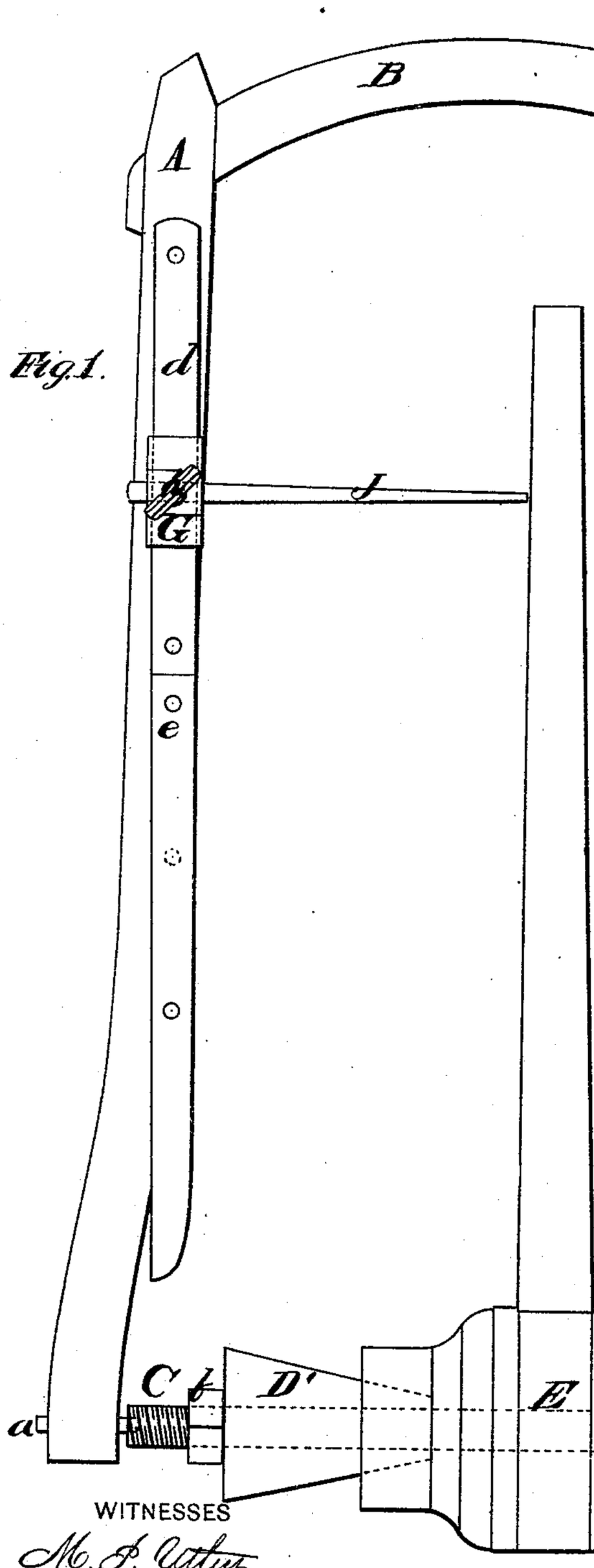
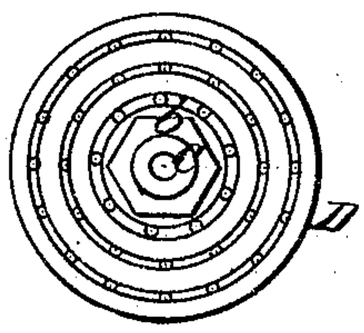


Fig. 2.



WITNESSES

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IMPROVEMENT IN MACHINES FOR SETTING SPOKES.

Specification forming part of Letters Patent No. **180,333**, dated July 25, 1876; application filed May 27, 1876.

To all whom it may concern:

Be it known that I, ALMON F. FLINT, of Moria, in the county of Franklin and State of New York, have invented a new and valuable Improvement in Machines for Setting Spokes; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a plan view of my spoke-gage and centering-machine, and Fig. 2 is an end view of the larger cone D.

This invention has relation to means for gaging hubs for giving the proper points to make the mortises; also, for properly setting the spokes; and the nature of my invention consists in the construction and arrangement of a spoke-gage and hub-centering machine, as will be hereinafter more fully set forth.

In the accompanying drawings, A A represent two curved spring-arms, which are connected at their upper ends by a cross-bar, B, and which form the frame of my machine. Through the lower ends of the arms A A are passed the centering-points *a a*, which enter holes or recesses made centrally into the ends of the mandrel C, so as to hold the same and allow it to be rotated in a true axial line. On the mandrel are placed two cones, D D′, the smallest ends of which pass into the hub E, and are fastened by means of nuts *b b*, screwed upon the mandrel against the largest ends of the cones. The mandrel C passes through the centers of the cones D D′, and these being held tightly in the ends of the hub, it is evident that the hub will be perfectly centered, whether it is large or small, the same machine being used for hubs of any size. On the front of one of the arms A is a stationary guide and straight-edge, *d e*, extending vertically downward. On the guide *d e* is a slide, G, fastened at any point desired by a set-screw, *h*, and carrying an adjustable arm or spindle, J. This arm extends horizontally into the frame, and is adjusted, as required, and held by said set-screw *h*, that fastens the slide.

By means of the slide G and the arm J the length of the spokes, as well as the dish of the wheel, is quickly and accurately gaged, and by this machine the spokes, when driven in, are brought perfectly true from the center of the hub or box.

The cones D D′ are made of unequal size, the larger cone D having on its outer or larger end three concentric circular grooves, which are spaced off and have depressions in them, so as to form a gage for indicating the proper points for mortising hubs of different sizes.

The guide or straight-edge *d e* is at right angles to the longitudinal axis of the hub E when it is secured between the cones D D′, and is used to determine the position of a "square" in marking off the hub.

I am aware that a spoke-gage and hub-centering machine, as shown in Letters Patent granted to Mills and McIrwin, dated June 25, 1867, No. 66,163, is not new, and I therefore lay no broad claim to such invention; but

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the spring-frame A B, centering-point *a*, mandrel C, cones D D′, guide and straight-edge *d e*, and adjustable gage-arm J, as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ALMON F. FLINT.

Witnesses:

LEWIS J. DICKINSON,

D. D. D. DEWEY.